

AMENDMENTS

Please enter the following amendments, without prejudice or disclaimer.

In the Title

Please amend to title to read as follows:

“Nucleic Acid Agents for Detecting Target Molecules and Methods for their Use”

In the Claims

Please amend claims 23, 32, 34-36, 38, 40, 45, and 48 as follows:

23. (Twice Amended) A method for detecting the presence of a target molecule in a composition, said method comprising:

a) contacting said composition with a catalytically inactive RNA molecule which binds to said target molecule, wherein said RNA molecule comprises a catalytic domain,

wherein binding of said catalytically inactive RNA molecule to said target molecule allows catalytic action upon a substrate other than the target molecule,

wherein said catalytic action upon the substrate is indicative of the presence of said target molecule in said composition; and

b) detecting the presence of the target molecule, if any.

32. (Once Amended) A method as in claim 23, wherein said catalytic domain is a catalytic domain of a hairpin ribozyme.

34. (Once Amended) A method as in claim 23, wherein said catalytic action comprises both cleavage and ligation of nonadjacent substrates that are both bound to the target.

35. (Once Amended) A method as in claim 23, wherein said catalytic action comprises cleavage of a capture probe which is bound to the target and ligation of two replicase probes which are bound to the target.

36. (Once Amended) A method as in claim 23, wherein said catalytic action comprises cleavage of a capture probe which is bound to the target and ligation of two replicase probes which are not bound to the target.

38. (Once Amended) A method as in claim 23, wherein the substrate comprises a capture probe which comprises polynucleotide sequences that are complementary to both the target sequence and the substrate sequence.

40. (Once Amended) A method as in claim 39, wherein said catalytic action comprises cleavage of the substrate and wherein a portion of the capture probe is released from the solid support upon said cleavage.

45. (Once Amended) A method as in claim 44, wherein said catalytic action comprises ligation of the two replication probes to each other.

48. (Once Amended) A method as in claim 45, wherein detecting the presence of the target molecule comprises amplification of the ligated replication probes by Q β replicase.